

STUDY of the EFFECTED FACTORS ON PERFORMANCE OF KNAPSACK SPRAYER

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ABSTRACT

The experiment was carried out in one of fields of Diyala governorate in 2010 by using knapsack sprayer to study two levels from (diameter of pipe of spraying gun rod 4 and 7 mm , number of strokes 6 and 8 , slop angle of spraying gun rod 5 and 45 degree) for their effecting on (discharge of sprayer, working width and practical productivity , volume of liquid per donm) by using factorial experiment RCBD with three replications . Results indicated that there were different effects for factors on all characteristics included in the study . The diameter of spraying gun rod 7mm gave significant effect on discharge of sprayer, working width and practical productivity . The number of strokes 8 gave a significant effect in discharge of sprayer, working width and practical productivity but without effect for volume of liquid per donm . The slop angle of spraying gun rod 5 degree showed a significant effect in work width and productivity . The slop angle of spraying gun rod 45 degree showed a significant effect in discharge and volume of liquid per don. From the interaction between the three factors we can see the interaction between diameter of pipe of spraying gun rod 7, number of strokes 8, slope angle of spraying gun rod 45 degree gave a significance effect in discharge. The interaction between diameter of pipe of spraying gun rod 7, number of strokes 8, slop angle of spraying gun rod 5 degree showed a significant effect in work width and productivity from the interaction between diameter of pipe of spraying gun rod 4, number of strokes 6, slop angle of spraying gun rod 45 degree showed a significant effect in volume of liquid per donm.